

ABSTRACT OF THE DISCLOSURE

Cu is nitrified to form a nitride of Cu 5 on a Cu wiring layer 1. A diffusion base material layer 6 used as a diffusion source and a barrier metal layer 7, which are interdiffused with Cu, are formed on the nitride of Cu 5. With heat treatment, the Cu wiring layer 1 and the diffusion base material layer 6 are interdiffused to form an alloy layer of Cu 8 between the Cu wiring layer 1 and the barrier metal layer 7.